

AMENDMENTS TO THE CLAIMS

1. (currently amended) ~~Use of a A catalyst for heterogeneous catalysis comprising a β-SiC support and at least one active phase, the said catalyst being obtainable by using a process comprising at least the following steps:~~

(a) impregnation of the said support having a specific surface area, determined by the BET nitrogen adsorption method at the temperature of liquid nitrogen according to standard NF X 11-621, equal to at least

2 m²/g and comprising macropores with a size between from 0.05 and to 10 µm and optionally also mesopores with a size between from 4 and to 40 nm, with at least one active phase precursor, the said impregnation being done by an impregnation process comprising at least a first impregnation step during which the said support is impregnated at least once by a polar agent A, and a second impregnation step during which the said support is impregnated at least once by an agent B less polar than agent A, knowing that wherein at least agent B comprises at least one active phase precursor,

(b) thermal breakdown of the said precursor,

~~the said use being as a~~ wherein said catalyst is capable of being used for a chemical reaction[[s]] selected among from the group consisting of oxidation of methane or other hydrocarbons, oxidation of carbon monoxide, ~~or as a catalyst for and~~ depollution of exhaust gases of vehicles with internal combustion engines.

2. (currently amended) ~~Use A catalyst according to claim 1, characterised in that the~~ wherein said active phase precursor is a metallic compound.

3. (currently amended) ~~Use A catalyst according to claim 2, characterised in that~~ wherein the metal contained in the said metallic compound ~~of agent A and / or agent B~~ is selected among from the group composed consisting of the Fe, Ni, Co, Cu, Pt, Pd, Rh, Ru, and Ir elements.

4. (currently amended) Use A catalyst according to claim 2 or 3, characterised in that the wherein said metallic compound contained in the said agents is either a salt dissolved in a solvent, or an organo-metallic compound.
5. (currently amended) Use A catalyst according to claim 4, characterised in that the wherein said organo-metallic compound is either dissolved in a solvent, or used in its a pure state.
6. (currently amended) Use A catalyst according to any one of claim[[s]] 1 to 5, characterised in that the wherein said support is in the form of balls, fibres, tubes, filaments, felt, extruded materials, foams, monoliths or pellets.
7. (currently amended) Use A catalyst according to any one of claim[[s]] 1 to 6, characterised in that the wherein said support has a BET specific surface area more than 2 of at least 10 m²/g, more than 10 m²/g, and preferably more than 20 m²/g.
8. (currently amended) Use A catalyst according to any one of claim[[s]] 1 to 7, characterised in that the wherein said support has a BET specific surface area between from 2 and to 100 m²/g.
9. (currently amended) Use A catalyst according to claim 8, characterised in that the wherein said macropores have a size between from 0.05 and to 1 µm.
10. (currently amended) Use A catalyst according to one of claim[[s]] 1 to 9, characterised in that the wherein a maximum size distribution of the said macropores is between from 0.06 and to 0.4 µm, and preferably between 0.06 and 0.2 µm.
11. (currently amended) Use A catalyst according to any one of claim[s]] 1 to 10, characterised in that wherein the impregnation method (a) comprises also at least one drying step after the first and / or the second impregnation step.
12. (currently amended) Use A catalyst according to any one of claim[[s]] 1 to 11, characterised in that wherein the impregnation method (a) comprises also at least a preliminary

treatment of the support that introduces hydrophobic and / or hydrophilic functions on the a surface of the said support.

13. (currently amended) Use A catalyst according to any one of claim[[s]] 1 to 12, characterised in that the wherein said precursor at least partially forms a metallic oxide during its thermal breakdown.

14. (currently amended) Use A catalyst according to claim 13, characterised in that wherein the thermal breakdown of the said precursor is followed by a treatment under a reactive gas.

15. (currently amended) Use A catalyst according to claim 13 or 14, characterised in that the wherein said treatment under a reactive gas is a reduction treatment.

16. (currently amended) Use A catalyst according to claim 15, characterised in that the wherein said reduction treatment has been is carried out in an atmosphere containing hydrogen H₂.

17. (currently amended) Use A catalyst according to one of claim[[s]] 1 to 16, characterised in that wherein the support, which has been dried after the a last impregnation step, is calcined under air at a temperature between from 200°C to and 500°C, and preferably between 300°C and 400°C.

18. (currently amended) A [[M]]method of impregnation of a β-SiC support with a specific surface area, determined by the BET nitrogen adsorption method at the temperature of liquid nitrogen according to standard NF X 11-621, equal to at least 2 m²/g and comprising macropores with a size between from 0.05 and to 10 µm, and optionally also mesopores with a size between from 4 and to 40 nm, the said process comprising at least the following steps:

- (a) a first impregnation step during which the said support is impregnated at least once by a polar agent A,
- (b) a second impregnation step during which the said support is impregnated at least once by an agent B less polar than agent A,

and ~~in which process~~ wherein at least one agent B among the said agents A and B comprises at least one active phase precursor.

19. (currently amended) A [[M]]method according to claim 18, characterised in that the wherein said support has a specific surface area equal to at least 10 m²/g.

20. (currently amended) A [[M]]method according to claim 19, characterised in that wherein the average size of the said macropores of the said support is ~~between~~ from 0.05 and to 1 μm.

21. (currently amended) A [[M]]method according to claim[[s]] 18 to 20, characterised in that the wherein a maximum value in the a distribution of the said macropores by size is ~~between~~ from 0.06 and to 0.4 μm, and preferably between 0.06 and 0.2 μm.

22. (currently amended) A [[P]]product that can be obtained using the a method according one of claim[[s]] 18 to 21.